BOTANIQ

Streamlining Species Data: From Citizen Science to Expert Validation

Introduction

Glasgow City Council's (GCC) Biodiversity Action Plan regularly documents native, wild plants and animals in the Glasgow Botanic Garden.

Problem Statement

The current species identification process relies on a **manual process**, creating an **unsustainable** workload for the expert.

Objective

1. Secure a **reliable stream** of species identification data
2. **Minimize** expert's **cognitive strain** among identification of thousands of species identification
3. **Streamlined workflow for**
   - Expert Data validation
   - Government agencies to retrieve relevant data
   - Glaswegians to access Glasgow's wildlife data

Solution

An all-in one desktop web application that uses data from iNaturalist to retrieve observations of species within Glasgow Botanic Gardens.

Automated Data Ingestion & AI

- Retrieves Glasgow-tagged data from iNaturalist
- ML model that predict label of injested data

Internal Dashboard Portal

- Real-time maps & trends
- Custom alerts for important species
- Data Export functions

Expert Validation & Active Learning

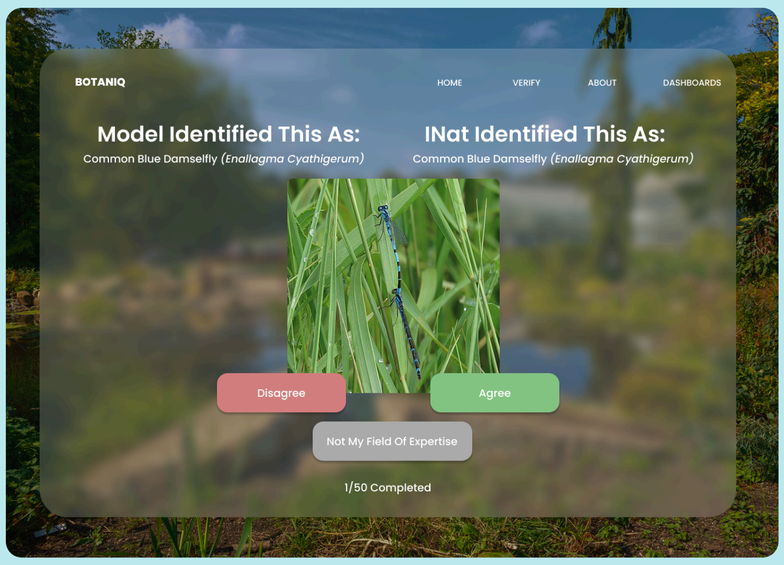
- Expert review of flagged observations
- Improvement of model accuracy with every wrong prediction

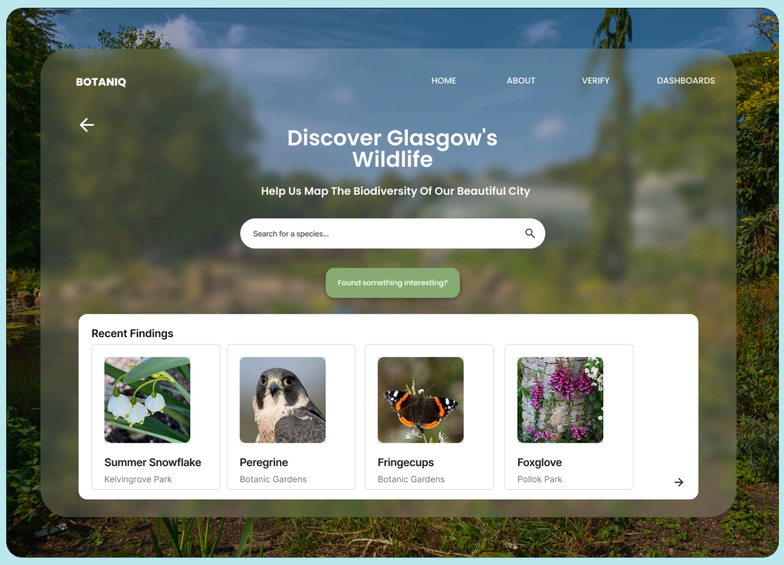
Public-Facing Portal

- Explore species by location
- AI Photo Identification

Benefits

- Reduction in expert workload
- Building a species dataset customized for Glasgow
- Glaswegian participation in wildlife recognition
- Allows for informed decisions





Website

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